

Notice of Allowability

Application No.

10/081,665

Examiner

Ram N Kacker

Applicant(s)

CHEN ET AL.

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/10/2003.
 2. ☒ The allowed claim(s) is/are 1, 4, 11 and 13-15.
 3. ☒ The drawings filed on 2/21/2002 are accepted by the Examiner.
 4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 - (a) ☐ The translation of the foreign language provisional application has been received.
 6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**


7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892) | 5 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____ |
| 3 <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No. _____ | 7 <input type="checkbox"/> Examiner's Amendment/Comment |
| 4 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |


U.S. PATENT AND TRADEMARK OFFICE
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EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Randy W. Tung on 11-28-2003.

The application has been amended as follows:

Claim 1 has been amended as follows:

Microchip fabrication apparatus for processing a wafer comprising:
a chamber for processing the wafer;
a plurality of pairs of lift mechanism pins within the chamber for supporting the wafer and
a plurality of capacitive proximity sensors disposed substantially at a tip of each of said plurality of lift mechanism pins for detecting the wafer position wherein;
the pairs of the plurality of capacitive proximity sensors are configured to detect a capacitance between an associated pair of lift mechanism pins.

Claim 2 (cancelled)

Claim 3 (cancelled)

Claim 4 has been amended as follows:

The apparatus as claimed in claim 1 wherein;
each of the plurality of capacitive proximity sensors detects the wafer in cooperation with
an associated lift mechanism pin.

Claim 5 (cancelled)

Claim 6 (cancelled)

Claim 7 (cancelled)

Claim 8(cancelled)

Claim 9 (cancelled)

Claim 10 (cancelled)

Claim 11 has been amended as follows:

The apparatus as claimed in claim 1 wherein the tip of at least one of said
plurality of lift mechanism pins has capacitive proximity sensing means disposed
substantially within the tip for detecting the proximity of the wafer.

Claim 12 (cancelled)

Claim 13 (not amended) The apparatus as claimed in claim 11 wherein the capacitive
proximity sensing means comprise respective pins.

Claim 14 has been amended as follows:

The apparatus as claimed in claim 11 wherein the capacitive proximity sensing
means comprises a probe electrode through a central longitudinal bore of a respective pin,
the probe electrode extending from a tip of said at least one of said plurality of lift
mechanism pins.

Claim 15 (not amended): The apparatus as claimed in claim 1 further comprising:

A capacitive sense logic circuit in communication with the capacitive proximity sensor for determining if a wafer is out of position.

Claim 16 (cancelled)

Claim 17 (cancelled)

Claim 18 (cancelled)

REASONS FOR ALLOWANCE

2. The following is an examiner's statement of reasons for allowance:

The closest prior art discloses wafer detection using capacitive proximity sensor but does not disclose detection by using capacitance proximity sensors configured to detect a capacitance between an associated pair of lift mechanism pins.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ram N Kackar whose telephone number is 703 305 3996. The examiner can normally be reached on M-F 8:00 A.M to 5:P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Mills can be reached on 703 308 1633. The fax phone number for the organization where this application or proceeding is assigned is 703 872 9310.

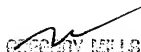
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0661.

RK


GREGORY MILLS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700